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# (12) United States Patent

# Moussette et al.

### (54) INPUT WITH HAPTIC FEEDBACK

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### (57) ABSTRACT

An electronic device is disclosed. The electronic device includes a mechanical input configured to move in a first direction in response to an input at the mechanical input. A mechanical input sensor is coupled to the mechanical input and configured to sense the input at the mechanical input based on the movement of the mechanical input in the first direction. A mechanical input actuator is coupled to the mechanical input and configured to displace the mechanical input in a second direction, different from the first direction. In some examples, the second direction is orthogonal to the first direction. In some examples, the mechanical input comprises a rotary input configured to rotate in the first direction in response to the input. In some examples, the mechanical input actuator is configured to displace the mechanical input in the second direction while the mechanical input is moving in the first direction.

## 19 Claims, 7 Drawing Sheets



